

Comparisons of Job Characteristics

Focus Occupation: [Structural Metal Fabricators and Fitters \(51-2041\)](#)

Associated Occupation: [Welders, Cutters, Solderers, and Brazers \(51-4121\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Structural Metal Fabricators and Fitters (51-2041)

Associated Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	9.5	8.6	< Expanded education and/or training may be required
Engineering and Technology	5.7	6.4	6.2	0 Current knowledge level may be sufficient
Design	5.2	6.0	10.3	>> Current knowledge level is likely more than sufficient
Building and Construction	4.0	4.9	6.9	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Structural Metal Fabricators and Fitters (51-2041)

Associated Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	7.4	6.1	< A higher skill level may be required
Troubleshooting	4.5	6.2	4.8	< A higher skill level may be required
Equipment Maintenance	3.5	5.9	1.9	<< Extensive development of skills in this area may be required
Repairing	3.4	5.9	1.7	<< Extensive development of skills in this area may be required
Equipment Selection	3.3	5.4	2.5	<< Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91			
Focus Occupation: Structural Metal Fabricators and Fitters (51-2041) Associated Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Arm-Hand Steadiness	6.8	11.4	9.5	<	Some improvement in abilities may be required
Near Vision	11.1	11.2	10.0	<	Some improvement in abilities may be required
Manual Dexterity	6.5	10.3	9.2	<	Some improvement in abilities may be required
Finger Dexterity	7.6	9.7	8.0	<	Some improvement in abilities may be required
Oral Expression	12.4	9.7	9.2	0	Current ability level may be sufficient
Oral Comprehension	12.5	9.6	9.2	0	Current ability level may be sufficient
Control Precision	6.6	9.5	8.7	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 92
Focus Occupation: Structural Metal Fabricators and Fitters (51-2041) Associated Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)		
Work Activities	Exclusivity of Activity	
Climb ladders, scaffolding, or utility or telephone poles	56	
Construct patterns or templates for welding projects	99	
Erect scaffold	56	
Examine products or work to verify conformance to specifications	15	
Fabricate beams	99	
Fabricate, assemble, or disassemble manufactured products by hand	11	
File, sand, grind, or polish metal or plastic objects	82	
Identify base metals for welding	68	
Identify properties of metals for repair or fabrication activities	71	
Lay out machining, welding or precision assembly projects	63	
Move or fit heavy objects	8	
Operate hoist, winch, or hydraulic boom	34	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Read blueprints	10	
Read production layouts	66	

Read specifications	23
Read technical drawings	7
Read work order, instructions, formulas, or processing charts	9
Recognize characteristics of alloys	71
Recognize characteristics of metals	62
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use hand or power tools	2
Use precision measuring tools or equipment	17
Use spot or tack welding techniques	87
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Structural Metal Fabricators and Fitters (51-2041)

Associated Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Data management and query software	1
Drafting supplies	9
Forming tools	2
Heating equipment and parts and accessories	19
Holding and clamping tools	3
Holding and positioning and guiding systems and devices	23
Indicating and recording instruments	2
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Marking tools	11
Measuring and layout tools	3
Metal bending and forming machinery	17
Metal working machinery attachments	35
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Soldering and brazing and welding machinery and supplies	6
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.